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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/642,917	08/19/2000	Shiri Kadambi	108339-09055	8677

32294	7590	02/01/2005

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EXAMINER
VANDERPUYE, KENNETH N

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	**Applicant(s)**
Office Action Summary	09/642,917	KADAMBI ET AL.
	Examiner	**Art Unit**	
	Kenneth N Vanderpuye	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☐ Claim(s) *1-12, 14-23, 25-35, 37-38, 40-42* is/are pending in the application.

    4a) Of the above claim(s) *13, 24, 36, 39* is/are withdrawn from consideration.

5) ☒ Claim(s) *1-38,41 and 42* is/are allowed.

6) ☒ Claim(s) *15-18,20,27-29,31 and 35* is/are rejected.

7) ☒ Claim(s) *19, 30* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/25/04 have been fully considered but they are not persuasive because:

With regards to claims 15, 26, the applicant fails to argue the functional significance or benefit of having stack interfaces configured to be one less than the predetermined number of switch building blocks. Since this is a design option for one of ordinary skill in the art to decrease the stack interfaces by any number. This feature is obvious as a matter of design choice hence the rejection is herby maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 15, 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (6,157,643).

With regards to claims 15, 26, Ma teaches a scalable network switch

(Fig. 2), said scalable network switch comprising a predetermined number

of switch building blocks interconnected in a meshed configuration (Fig. 2),

wherein at least one of said predetermined number of switch building

blocks comprises:

at least one data port interface(Fig. 2, SE1) supporting a plurality of

ports for transmitting and receiving data, and a predetermined number of

stack link interfaces(SE1 has links connecting it to SE2 blocks) configured

to transmit data between one of said predetermined number of building

blocks and another of said predetermined number of building blocks(Fig. 2,

SE1 uses the links to transmit data to SE2). What Ma does not teach is the

limitation, ... "wherein the predetermined number of stack link interfaces is

configured to be one less than the predetermined number of switch building

blocks." However the configuration of the interfaces to be one less than the

switch building blocks is obvious as a matter of design choice.

Claim 40 is rejected because Ma teaches a method for handling

packets in network switch, said method comprising the steps of:

receiving a packet in a clustered network switch; (col. 4 lines 34-39)

determining a destination address of the packet from a lookup operation in

a common table and forwarding the packet to the destination address determined from the lookup operation. (Fig. 2, the output element to which a packet is directed is dependent on the destination address in the packet). Although Ma is silent storing the packet in a memory in accordance with a predetermined algorithm, Ma does teach using buffers to receive packets. Since a buffer as used for temporary storage, it would have been obvious to one of ordinary skill in the art that an algorithm must be used to control the storage of packets in the buffers. Also Ma fails to teach determining a destination address of the packet from a lookup operation in a common table. Since one can have a common lookup table or multiple lookup table, the decision to use one or the other is a matter of design choice depending on how fast the designer wants access to the lookup table.

Claims 16-18, 20, 27-29 , 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lau et al(6,625,121) in view of DiPlacido(6,226,292).

With regards to claim 16-18, 27-29 Lau teaches a scalable network switch (Fig. 1), said scalable network switch comprising a predetermined number of switch building blocks interconnected in a meshed configuration

(Fig. 1), wherein at least one of said predetermined number of switch

building blocks comprises:

at least one data port interface(Fig. 1, LC1) supporting a plurality of

ports for transmitting and receiving data, and a predetermined number of

stack link interfaces(LC1 has links connecting it to SF1, SF2 etc)

configured to transmit data between one of said predetermined number of

building blocks and another of said predetermined number of building

blocks(Fig. 1, LC1 uses the links to transmit data to SF1). Although Lau

does not teach first and second ports supporting a plurality of first and

second data ports transmitting/receiving data at first and second rates, Lau

does suggest that the switch may be a frame relay switch. Frame relay

switches support variable length packet transmission(col. 3 lines 8-16).

This feature is taught by DiPlacido (Fig. 1). In DiPlacido, the fast Ethernet

and gigabit inputs represent different rates. It would have been obvious to

one of ordinary skill in the art to combine this feature with Lau for the

purpose of supporting multiple rates.

With regards to claims 20, 31 Lau teaches a scalable network switch

(Fig. 1), said scalable network switch comprising a predetermined number

of switch building blocks interconnected in a meshed configuration (Fig. 1),

wherein at least one of said predetermined number of switch building

blocks comprises:

at least one data port interface(Fig. 1, LC1) supporting a plurality of

ports for transmitting and receiving data, and a predetermined number of

stack link interfaces(LC1 has links connecting it to SF1, SF2 etc)

configured to transmit data between one of said predetermined number of

building blocks and another of said predetermined number of building

blocks(Fig. 1, LC1 uses the links to transmit data to SF1). What Lau fails to

teach is the limitation...wherein said predetermined number of stack link

interfaces further comprise a gigabit stack link interface configured to

transmit and receive data from another gigabit stack link interface on

another switch building block. DiPlacido teaches gigabit inputs that transmit

and receive data from another gigabit stack link interface on another switch

building block. It would have been obvious to one of ordinary skill in the art

to combine this feature with Lau for the purpose of supporting faster data

rates.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable

over Lau et al.) in view of Kadambi et al.(6,195,334).

With regards to claims 35, Lau teaches a scalable network switch (Fig. 1), said scalable network switch comprising a predetermined number of switch building blocks interconnected in a meshed configuration (Fig. 1), wherein at least one of said predetermined number of switch building blocks comprises:

at least one data port interface(Fig. 1, LC1) supporting a plurality of ports for transmitting and receiving data, and a predetermined number of stack link interfaces(LC1 has links connecting it to SF1) configured to transmit data between one of said predetermined number of building blocks and another of said predetermined number of building blocks(Fig. 1, LC1 uses the links to transmit data to SF1). What Ma fails to teach is a physical layer transceiver in connection with at least one of a plurality of data ports. Kadambi teaches a network switch including a physical layer transceiver (see abstract). It would have been obvious to one of ordinary skill in the art to combine Kadambi with Ma for the purpose of enabling the switch in Ma to transmit and receive data at the physical layer.

Allowable Subject Matter

Claims 1-12, 14, 21-23, 25, 32-34, 37-38, 41- 42 are allowed.

Claims 19, 30 are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form

including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Kenneth N Vanderpuye whose

telephone number is 571-272-3078. The examiner can normally be

reached on M-F(7:30-5:00) Second Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Chau Nguyen can be reached on 571-272-3126.

The fax phone number for the organization where this application or

proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this

application or proceeding should be directed to the receptionist whose

telephone number is 703-305-3900.
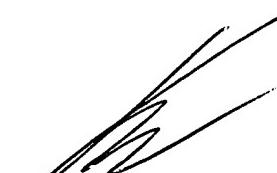
KENNETH VANDERPUYE
PRIMARY EXAMINER

KNV
1/29/05